UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,547	01/04/2001	Arendse Bernth	YOR920000626US1	1833

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EXAMINER
NGUYEN, CHAU T

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

	Application No.	Applicant(s)
Office Action Summary	09/753,547	BERNTH ET AL.
	Examiner	**Art Unit**	
	Chau Nguyen	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 20050318

DETAILED ACTION

1.   Amendment, received on 10/15/2004, has been entered. Claims 1-24 are

presented for examination.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   Claims 1, 11 and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated

by Domini et al. (Domini), US Patent No. 6,085,206.

4.   As to claims 1, 11 and 23-24, Domini discloses a method for intelligent

spellchecking, comprising:

performing a spellchecking of a word by considering an entire sentence

and a structure of the entire sentence (Abstract, and col. 3, line 31 – col. 4, line

30: verifying the accuracy of the grammatical composition of a sentence and the

spelling of words within the sentence in an electronic document, and determining

whether any of the words in the sentence are misspelled).

wherein said performing a spellchecking comprises determining a context

of said word by slot-filling (col. 3, line 55 – col. 4, line 30 and col. 11, line 9 – col.

12, line 7: determining whether any of the words in the sentence are misspelled

and a list of words for suggestion (its potential replacement or slot-filling) to

replace the misspelled words; col. 12, line 50 – col. 13, line 18: the misspelled

word will be replaced with one of the suggestions).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

6.   Claims 2-10 and 12-22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Domini as applied to claims 1, 11 and 23 above, and further in

view of Schabes et al. (Schabes), US Patent No. 6,424,983.

7.   As to claims 2, 12 and 20, Domini disclose parsing the sentence to

produce a first parse (col. 3, line 55 – col. 4, line 30: a sentence is parsed from a

document);

        examining a list of words in the sentence and identifying a confusable

original word along with its potential replacement (col. 3, line 55 – col. 4, line 30

and col. 11, line 9 – col. 12, line 7: determining whether any of the words in the

sentence are misspelled and a list of words for suggestion (its potential

replacement) to replace the misspelled words);

        .   replacing the confusable word with its replacement to produce a resulting

sentence (col. 12, line 50 – col. 13, line 18: the misspelled word will be replaced

with one of the suggestions); and

        However, Domini does not disclose parsing the resulting sentence to

produce a second parse.   Schabes discloses detecting misspelled words in a

text, for each misspelled word, determining a list of alternative words for the

misspelled word, replacing the misspelled word in the text with the selected one

of the alternative words, and then checking the document for grammatically-

incorrect words by generating a finite state machine (parsing) for text in the text

document (Abstract, col. 2, line 45 – col. 5, line 57 and col. 22, lines 32-62).

Since Schabes teaches a system for spelling and grammar checking, which is similar to the system for verifying accuracy of spelling and grammatical composition of a document of Domini, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schabes and Domini to include parsing the resulting sentence to produce a second parse. Schabes suggests that using a spelling and grammar checking system is to correct words that have misused in a given context in cases where the words have been spelled incorrectly and in cases where the words have been spelled correctly.

8.   As to claims 3, 4, 5 and 13, Domini and Schabes (Domini-Schabes) disclose comparing slot-filling information of the first parse to slot-filling statistics for the original word, comparing slot-filling information of the second parse to the slot-filling statistics fro the replacement word, and comparing two matches with the slot-filling statistics found for the original word and the replacement word (Schabes, col. 17, line 8 – col. 22, line 26: Schabes suggests that using a spelling and grammar checking system is to correct words that have misused in a given context in cases where the words have been spelled incorrectly and in cases where the words have been spelled correctly).

9.   As to claims 6 and 14, Domini-Schabes disclose wherein a better match indicates the preferred spelling in context (Schabes, col. 17, line 8 – col. 22, line

26: Schabes suggests that using a spelling and grammar checking system is to

correct words that have misused in a given context in cases where the words

have been spelled incorrectly and in cases where the words have been spelled

correctly).

10.   As to claims 7 and 15, Domini-Schabes disclose wherein said first and

second parses produce a parse score and in determining a parse score each

parse automatically considers a slot-filling statistics of the original word and the

replacement word (Schabes, col. 9, lines 12-25).

11.   As to claims 8 and 16, Domini-Schabes disclose wherein a comparison of

the matches includes checking both a mother designation and a daughter

designation of words in said sentence (Schabes, col. 20, lines 40-49).

12.   As to claims 9, 17 and 21-22, Domini-Schabes disclose wherein a

decision as to which word is best depends on comparing a first parse score and

a second parse score, independently of any use of lexical statistics (Schabes,

col. 17, line 8 – col. 22, line 26: Schabes suggests that using a spelling and

grammar checking system is to correct words that have misused in a given

context in cases where the words have been spelled incorrectly and in cases

where the words have been spelled correctly).

13.   As to claims 10 and 18-19, Domini-Schabes disclose wherein a selection

of a best match for a word determined to be misspelled is performed by

comparing a first parse score and a second parse score. (Schabes, col. 10, line

52 – col. 11, line 41).

Response to Arguments

In the remarks, applicant(s) argued in substance that

A) Prior art does not teach or suggest "wherein said performing a spellchecking

comprises determining a context of said word by slot-filling."

As to point A, Domini discloses in col. 3, line 55 – col. 4, line 30 and col. 11, line

9 – col. 12, line 7: determining whether any of the words in the sentence are misspelled

and a list of words for suggestion (its potential replacement or slot-filling) to replace the

misspelled words; and col. 12, line 50 – col. 13, line 18: the misspelled word will be

replaced with one of the suggestions. These teachings of Domini are interpreted as

broadly as claimed "determining a context of said word by slot-filling".

B) Domini and Schabes references are unrelated and no person of ordinary skill in the

art would have considered combining these disparate references, absent impermissible

hindsight.

As to point B, In response to applicant's argument that the examiner's conclusion

of obviousness is based upon improper hindsight reasoning, it must be recognized that

any judgment on obviousness is in a sense necessarily a reconstruction based upon

hindsight reasoning. But so long as it takes into account only knowledge which was

within the level of ordinary skill at the time the claimed invention was made, and does

not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA

1971). In this case, Domini does not disclose parsing the resulting sentence to produce

a second parse. Schabes discloses detecting misspelled words in a text, for each

misspelled word, determining a list of alternative words for the misspelled word,

replacing the misspelled word in the text with the selected one of the alternative words,

and then checking the document for grammatically-incorrect words by generating a

finite state machine (parsing) for text in the text document (Abstract, col. 2, line 45 – col.

5, line 57 and col. 22, lines 32-62). Since Schabes discloses a system of correcting

misspelled in input text for detecting a misspelled word in the input text and replacing

the misspelled word in the text with one of determined alternative words based on a

context of the input text (Abstract), which is similar to a system and method for verifying

the accuracy of the grammatical composition of a sentence and the spelling of words

within the sentence in an electronic document by determining whether any of the words

in the sentence are misspelled and replacing misspelled words with correct ones

(Abstract) of Domini, thus it would have been obvious to one of ordinary skill in the art at

the time the invention was made to combine the teachings of Schabes and Domini to include parsing the resulting sentence to produce a second parse. Schabes suggests that using a spelling and grammar checking system is to correct words that have misused in a given context in cases where the words have been spelled incorrectly and in cases where the words have been spelled correctly.

C) Schabes does not teach or suggest a method of intelligent spellchecking that includes performing a spellchecking by determining a context of said word by slot-filling.

As to point C, Examiner's rejected the limitation "performing a spellchecking by determining a context of said word by slot-filling" using the Domini reference. Please see the rejection and response to argument A above.

14.   Applicant's arguments filed 10/15/2004 have been fully considered but they are not persuasive. Please see the rejection and response to arguments above.

THIS ACTION IS MADE FINAL.   Applicant is reminded of the extension of time

policy as set forth in 37CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.   In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.   In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chau Nguyen whose telephone number is (571) 272-

4092. The examiner can normally be reached on 8:00 am – 5:00 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph Feild, can be reached on (571) 272-4090. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau Nguyen
Patent Examiner
Art Unit 2176

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER